

**CLAIMS**

1 1-7. (*canceled*)

1 8. (*currently amended*) ~~An array hybridization~~ A method

2 comprising the steps of:

3 introducing sample liquid into a reaction cell having a hybridization  
4 probe array so that some interior volume is partially occupied by  
5 sample liquid and partially occupied by gas;

6 centrifuging said sample liquid by rotating said reaction cell ~~having~~  
7 ~~a probe array~~ so that centrifugal ~~forces~~ force in excess of 1G urges said  
8 sample liquid against said array; and

9 agitating said sample liquid in said reaction cell during said  
10 centrifuging so that said sample liquid moves relative to said array.

1 9. (*currently amended*) ~~An array hybridization~~ A method as  
2 recited in Claim 8 wherein said agitation involves rotating said ~~sample~~  
3 reaction cell about an agitation axis that is more orthogonal to than  
4 along said centrifugal force.

1 10. (*currently amended*) ~~An array hybridization~~ A method as  
2 recited in Claim 9 wherein said agitating involves periodically changing  
3 the direction of rotation about said agitation axis so as to define an  
4 agitation cycle rate.

1 11. (*currently amended*) ~~An array hybridization~~ A method as  
2 recited in Claim ~~11~~ 10 wherein said centrifuging involves rotating said  
3 reaction cell at a centrifuge rate greater than said agitation rate.

1 12. (*currently amended*) ~~An array hybridization~~ A method as  
2 recited in Claim 10 wherein said agitation involves rotating said  
3 ~~sample reaction~~ cell about an agitation axis that extends more parallel  
4 to than orthogonal to said centrifuge axis .

1        13. *(currently amended)* ~~An array hybridization~~ A method as  
2 recited in Claim 12 wherein said array extends more orthogonal to said  
3 centrifugal force than along it so that said centrifugal forces urges said  
4 sample liquid against said array.

1        14. *(currently amended)* ~~An array hybridization~~ A method as  
2 recited in Claim 13 further comprising a step of removing sample  
3 liquid from said reaction cell, said removing step involving rotating  
4 said reaction cell by rotating it about said agitation axis so that said  
5 centrifugal force urges said fluid in said reaction cell away from said  
6 array.

1        15. *(currently amended)* ~~An array hybridization~~ A method as  
2 recited in Claim 8 wherein said sample liquid occupies at most half of  
3 said interior volumes~~said reaction cell is filled at most half way with~~  
4 ~~sample liquid.~~

1        16. *(new)* A method comprising:  
2        introducing sample liquid into a reaction cell having a hybridization  
3 probe array so that some interior volume is partially occupied by  
4 sample liquid and partially occupied by gas;  
5        centrifuging said sample liquid by rotating said reaction cell so that  
6 centrifugal force urges said sample liquid against said array; and  
7        rotating said reaction cell about an agitation axis that is more  
8 orthogonal to than along said centrifugal force so that said sample  
9 liquid moves relative to said array.

1        17. *(new)* A method as recited in Claim 16 wherein said agitating  
2 involves periodically changing the direction of rotation about said  
3 agitation axis so as to define an agitation cycle rate.

1        18. *(new)* A method as recited in Claim 17 wherein said  
2 centrifuging involves rotating said reaction cell at a centrifuge rate  
3 greater than said agitation rate.

1 19. *(new)* A method as recited in Claim 18 wherein said sample  
2 liquid occupies at most half of said interior volume.

1 20. *(new)* A method comprising:  
2 introducing sample liquid into a reaction cell having a hybridization  
3 probe array so that some interior volume is partially occupied by  
4 sample liquid and partially occupied by gas;  
5 centrifuging said sample liquid by rotating said reaction cell so that  
6 centrifugal force urges said sample liquid against said array; and  
7 rotating said reaction cell about an agitation axis that is more  
8 parallel than orthogonal to said centrifugal force so that said sample  
9 liquid moves relative to said array.

1 21. *(new)* A method as recited in Claim 20 wherein said agitating  
2 involves periodically changing the direction of rotation about said  
3 agitation axis so as to define an agitation cycle rate.

1 22. *(new)* A method as recited in Claim 21 wherein said  
2 centrifuging involves rotating said reaction cell at a centrifuge rate  
3 greater than said agitation rate.

1 23. *(new)* A method as recited in Claim 20 wherein said array  
2 extends more orthogonal to said centrifugal force than along it so that  
3 said centrifugal force urges said sample liquid against said array.

1 24. *(new)* A method as recited in Claim 23 further comprising  
2 removing sample liquid from said reaction cell, said removing  
3 involving rotating said reaction cell by rotating it about said agitation  
4 axis so that said centrifugal force urges said fluid in said reaction cell  
5 away from said array.

1 25. *(new)* A method as recited in Claim 20 wherein said sample  
2 liquid occupies at most half of said interior volume.